

The following are recommendations for revisions to the WHO Strategy on Oral Health.

#5: We recommend updating the incidence of cleft lip and/or palate to 1 in 700, the widely accepted rate. While some risks may be higher for *cleft lip and palate* patients, all phenotypes of cleft (isolated lip, lip and palate, isolated palate) have serious implications on oral health.

Recommended text: Cancers of the lip and oral cavity together represent the sixteenth most common cancer worldwide, with over 375000 new cases and nearly 180 000 deaths in 2020.³ Noma is a necrotizing disease that is a marker of extreme poverty; it starts in the mouth and is fatal for as much as 90% of affected children.^{4,5} Cleft lip and/or palate, the most common craniofacial birth defect, has a prevalence of approximately 1 in 700 births, with considerable ethnic and geographic variation.^{6,7} Traumatic dental injury is estimated to have a global prevalence of 23% for primary teeth and 15% for permanent teeth, affecting over one billion people.⁸

References:

Dahllöf G, Ussisoo-Joandi R, Ideberg M, Modeer T. Caries, gingivitis, and dental abnormalities in preschool children with cleft lip and/or palate. *Cleft Palate J.* 1989 Jul;26(3):233-7; discussion 237-8. PMID: 2788042.
Bian Z, Du M, Bedi R, Holt R, Jin H, Fan M. Caries experience and oral health behavior in Chinese children with cleft lip and/or palate. *Pediatr Dent.* 2001 Sep-Oct;23(5):431-4. PMID: 11699170.

#7: Families affected by cleft lip and/or palate are part of some of the most vulnerable in communities worldwide. cleft lip and/or palate more often affects socioeconomically disadvantaged individuals and being born with a cleft has been found to exacerbate a child's likelihood of being left out of school, the healthcare system, and the workforce. For this reason, we recommend that orofacial clefts are specifically called out in this section:

Recommended text: There is a very strong and consistent association between socioeconomic status (income, occupation and educational level) and the prevalence and severity of oral diseases and conditions. Across the life course, oral diseases and conditions disproportionately affect the poor and vulnerable members of societies, often including those who are on low incomes, born with cleft lip and/or palate, living with disability, refugees, prisoners and/or socially marginalized groups.

References:

Socioeconomic Position and Risk of Oral Clefts. *AAP Grand Rounds* Jan 2016, 35 (1) 4; DOI: 10.1542/gr.35-1-4
Fitzsimons KJ, Deacon SA, Copley LP, Park MH, Medina J, van der Meulen JH. School absence and achievement in children with isolated orofacial clefts. *Arch Dis Child.* 2021 Feb;106(2):154-159. doi: 10.1136/archdischild-2020-319123. Epub 2020 Aug 19. PMID: 32816695.
Smillie I, Yong K, Harris K, Wynne DM, Russell CJ. Socioeconomic influence on orofacial cleft patient care. *Scott Med J.* 2015 May;60(2):70-4. doi: 10.1177/0036933014564133. Epub 2014 Dec 12. PMID: 25504476.
Dak-Albab RJ, Dashash MA. The influence of socioeconomic status on oral health-related quality of life among Syrian children with cleft lip, or palate, or both. *Saudi Med J.* 2013 Feb;34(2):181-6. PMID: 23396466.
Muntz HR, Meier JD. The financial impact of unrepaired cleft lip and palate in the Philippines. *Int J Pediatr Otorhinolaryngol.* 2013 Dec;77(12):1925-8. doi: 10.1016/j.ijporl.2013.08.023. Epub 2013 Sep 20. PMID: 24139590.
Dvivedi J, Dvivedi S. A clinical and demographic profile of the cleft lip and palate in Sub-Himalayan India: A hospital-based study. *Indian J Plast Surg.* 2012;45(1):115-120. doi:10.4103/0970-0358.96602

#9: We recommend detailing modifiable risk factors for conditions referenced, including cleft lip and/palate, to emphasize the shared modifiable risk factors and better inform strategies for prevention.

Recommended Text: Oral diseases and conditions share modifiable risk factors common to the leading noncommunicable diseases, that is, cardiovascular disease, cancer, chronic respiratory disease and diabetes. These risk factors include all forms of tobacco use, betel quid and areca nut use, harmful alcohol use, high sugars intake and lack of breastfeeding, as well as the human papilloma virus for oropharyngeal cancers. The risk factors for noma include malnutrition, coinfections, poor oral hygiene and poor living conditions. Some of these risk factors are also associated with traumatic dental injury. The most common craniofacial malformation, cleft lip and/or palate, is associated with some of these same modifiable risk factors, as well as others such as vitamin deficiencies, maternal metabolic syndromes, and environmental exposures such as cigarette smoke and alcohol.

Additional references:

Nasreddine G, El Hajj J, Ghassibe-Sabbagh M. Orofacial clefts embryology, classification, epidemiology, and genetics. *Mutat Res Rev Mutat Res.* 2021;787:108373. doi:10.1016/j.mrrev.2021.108373

Stothard KJ, Tennant PW, Bell R, Rankin J. Maternal overweight and obesity and the risk of congenital anomalies: a systematic review and meta-analysis. *JAMA.* 2009;301(6):636-650. doi:10.1001/jama.2009.113

Van Dyck J, Begnoni G, Willems G, et al. Dental development in patients with and without unilateral cleft lip and palate (UCLP): a case control study. *Clin Oral Investig.* 2021;25(5):2619-2631. doi:10.1007/s00784-020-03573-1

#17: Comment on Vision, Goal, and Guiding Principles:

We strongly welcome the recognition of oral health as a fundamental human right. The description of the strategy's vision includes the three elements of UHC (quality, accessibility, and affordability) and asks for the oral health response to be needs-based. We welcome reference to the wide range of services that universal oral health coverage should encompass, including prevention and rehabilitation. Rehabilitation should not be forgotten in the context of oral healthcare, as this is an essential service. For example, for people undergoing oral surgery in the context of a cleft or other complications.

#21: We welcome the emphasis placed on the education and training of health workers to build capacity for oral health service delivery. This must include education and training across silos to ensure that oral health services align with community needs and are fully integrated within health systems.

Recommended Text: Oral health resource and workforce planning models need to better align education and training of health workers with population oral health needs. Universal oral health coverage can only be achieved by reforming the health, education and resource planning systems to ensure the oral health workforce is of adequate size and skills mix to provide essential oral health care acknowledging and understanding some of the most common conditions such as cleft lip and/or palate. This requires reassessing the roles and competencies of mid-level oral health care providers and community oral health workers based on the new WHO Global competency framework for universal health coverage.

#32: We align fully with the need to refocus the oral health research agenda as described in Strategic Objective 5. We urge WHO to also emphasize the need for increased funding to support an ambitious and comprehensive oral health research agenda. Oral health research is often given low priority in funding agencies and there is an urgent need for more funding in this area. This is particularly the case for common conditions such as cleft lip and/or palate.

Recommended Text: Strategic objective 5 strives to move beyond the historical oral health research agenda that has focused heavily on dental technology and problem description, rather than problem-solving. The new oral health research agenda should be oriented towards public health programmes, population-based interventions, learning health systems, workforce models, digital technologies, and the public health aspects of oral diseases and conditions, such as primary health care interventions, minimally invasive interventions, alternative dental restorative materials, environmentally sustainable practice, and economic analyses to identify cost-effective interventions. Financial investment in oral health research, particularly for common conditions such as cleft lip and/or palate, should be prioritized.

Suggested additional strategic objective: Oral Health Workforce:

We urge WHO to consider the addition of a new strategic objective on oral health workforce specifically, in line with the guiding principle: A new oral health workforce model to respond to population needs. This will help address the different challenges affecting the oral health workforce, such as education, retention, geographical distribution, planning, and intra- and inter-professional collaboration. It needs to be specified how oral health workers can help address shared risk factors (e.g., via tobacco cessation support, dietary advice, etc.) and support general health check-ups (e.g., performing screenings for oral cancer and diabetes). Also, non-oral health workers can be trained to deliver brief oral hygiene interventions performing a risk assessment and referring patients to a dentist when relevant.

#44: It is imperative to reinforce the point that Member States need to take specific action to see that they are addressing the needs of the most marginalized. Disparities still exist in the access to oral care, mostly affecting the disadvantaged and marginalized populations. To address this, local oral health professionals and the healthcare system should have a focus on reaching those who need it most. This specific point seems to be missing from 41-44; we recommend it is added as such:

Recommended Text: Member States should critically review and continuously update their oral health education and training curricula prioritizing a public health approach to oral health and reflective problem-solving and leadership skills among future oral health professionals. They should also review their system's ability to reach marginalized and disadvantaged populations.

Additional references:

Ghanbarzadegan A, Bastani P, Luzzi L, Brennan D. Inequalities in utilization and provision of dental services: a scoping review. *Syst Rev.* 2021;10(1):222. Published 2021 Aug 10. doi:10.1186/s13643-021-01779-2

Ghanbarzadegan A, Balasubramanian M, Luzzi L, Brennan D, Bastani P. Inequality in dental services: a scoping review on the role of access toward achieving universal health coverage in oral health. *BMC Oral Health.* 2021;21(1):404. Published 2021 Aug 17. doi:10.1186/s12903-021-01765-z

Chang Q, Gao X, Xu M, et al. Socioeconomic-related inequality in dental care utilization among preschool children in China [published online ahead of print, 2021 Jul 20]. *Community Dent Oral Epidemiol.* 2021;10.1111/cdoe.12681. doi:10.1111/cdoe.12681

Ghanbarzadegan A, Balasubramanian M, Luzzi L, Brennan D, Bastani P. Inequality in dental services: a scoping review on the role of access toward achieving universal health coverage in oral health. *BMC Oral Health.* 2021;21(1):404. Published 2021 Aug 17. doi:10.1186/s12903-021-01765-z

#45 – 46: We align with this section but mention of collaboration of international partners with national actors to ensure implementation at the regional and national level should be added.